



# **Region 4 Inventory and Monitoring Network**

# Mobile Acoustical Bat Monitoring Annual Summary Report 2012

### BIG OAKS NATIONAL WILDLIFE REFUGE



The Region 4 Inventory and Monitory Network coordinated acoustical bat monitoring on 39 National Wildlife Refuges and 3 Ecological Services field offices in Regions 2, 3, and 4 in 2012. Surveys will establish baseline inventories of bats at each station and contribute to a landscape-level understanding of bat population trends and habitat associations. Bat call data were collected using Anabat SD2 detectors along 8-30 mile transects following the procedures outlined in the Mobile Bat Acoustical Survey Protocol (USFWS 2012).

This report summarizes but calls collected along transects at your station in 2012. Calls were classified using EchoClass (v1.1) software, but classification of calls to species is not reported at this time due to ongoing software assessment and validation. Calls were geo-referenced and spatially projected for each survey period to identify relative but use along transects. We will provide a revised annual summary report, transect shapefiles, and spatially referenced data output files once robust classifications to species are available. For surveys in which GPS data were not collected, a summary of the calls is presented without spatial reference.

All submitted call data and survey metadata have been archived and are available on the Mobile Acoustical Bat Monitoring SharePoint site (https://fishnet.fws.doi.net/regions/4/nwrs/IM/bats). Bat call files, GPS data, and survey metadata sheets were reviewed for quality assurance prior to generation of this report. Some submitted data were necessarily excluded due to identified errors in collection processes. All acoustical bat data will be summarized in a comprehensive project annual report following station-level reports.

U.S Fish and Wildlife Service, 2012. Mobile Bat Acoustical Survey Protocol, U.S. Fish and Wildlife Service, Region 4, Division of Refuges

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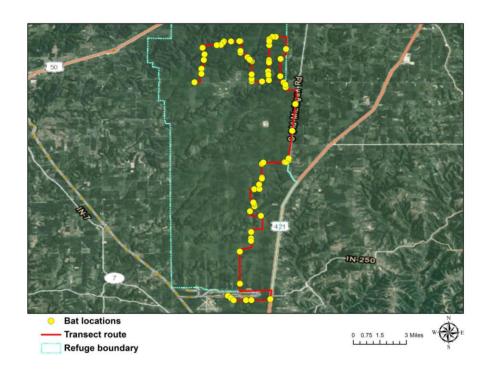
# **BIG OAKS NATIONAL WILDLIFE REFUGE**

# Route Name: BokNWR1 Big Oaks NWR East Route

Survey Date: 8/8/2012 Survey route completed? ✓

Number of bat calls recorded: 77 GPS data collected? ✓

**Total length of transect (miles):** 33.53



**Observer 1:** Tess Piening

**Observer 2:** Stephanie Bishir

**Start Time:** 10:05:00 PM **End Time:** 11:53:00 PM

Start Temp: 81 End Temp: 76

Start Wind: 1 End Wind: 1

Start Cloud: 30 End Cloud: 20

Start Moon Visible? ✓ End Moon Visible? ✓

**Moon Phase:** 1/2

#### **Survey Notes:**

Collector notes: thunderstorm to the north, light rain; QA/QC notes: Data collected outside the survey period; QA/QC of survey data revealed no errors.

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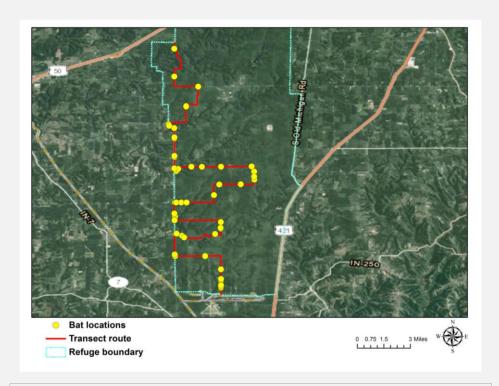
# **BIG OAKS NATIONAL WILDLIFE REFUGE**

# Route Name: BokNWR2 Big Oaks NWR West Route

Survey Date: 8/9/2012 Survey route completed? ✓

Number of bat calls recorded: 57 GPS data collected? ✓

Total length of transect (miles): 31.13



**Observer 1:** Dave Papanu

**Observer 2:** Andrew Hoffman

**Start Time:** 9:12:00 PM **End Time:** 11:00:00 PM

Start Temp: 73 End Temp: 69

Start Wind: 2 End Wind: 2

Start Cloud: End Cloud:

Start Moon Visible? ✓ End Moon Visible? ✓

**Moon Phase:** 1/2

#### **Survey Notes:**

Collector notes: possible high winds, storms north and east of refuge but no rain on route; QA/QC notes: Data collected outside the survey period; QA/QC of survey data revealed no errors.

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